

Status Report

The objective of this report is to provide details on the status of all team members working on the [EZ Tracker Internet of Things project](#), and the current progress we have made so far.

Hardware

The hardware components of this project include the integration of three sensors with the [Broadcom development platform \(Raspberry Pi\)](#). The sensors we are using include a [LSM303 Accelerometer & Magnetometer](#), a [SSD1306 Monochrome OLED](#), and a [MPR121 Capacitive Touch](#) sensor.

Acquisitions & Financial Status

To date, we have acquired an extra LSM303 Accelerometer & Magnetometer, SSD1306 Monochrome OLED, and MPR121 Touch Sensor. The LSM303 by itself cost [\\$42](#) including shipping and the SSD1306 was [\\$14.40](#). During production, we believe it is a wise decision to purchase extra parts as mistakes or breakages may occur which can result in a delayed or rushed project. Since we have decided to acquire extra hardware, this is added cost to our budget. Therefore, our financial status have changed marginally.

Challenges

Due to the hardware being portable by nature, we are aiming for all sensors to fit onto one PCB as we aim for a compact device. This is a bit challenging since the working space within the Broadcom development platform is limited. However, we have found an [online resource](#) to assist in this regard. Jonas has begun trials using all of the sensors on one breadboard. Once the hardware can interact seamlessly, Jonas will design the PCB on [Fritzing](#), with added assistance from Delroy and Ryan when required. It might be a good idea to use a [Pi Zero](#) for a smaller form factor. Our group can discuss this in the following weeks.

Opportunities

Delroy and Ryan are currently working on the website and revising the [Android application](#). They are drafting basic designs for it with the plan of having a consistent interface between the website and the application. Their main goal at this point is to read data from Google's Firebase, and focus on design later. Having worked, and successfully interacted with the database on the Android app, the web based version should flow together with few issues.